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(54) **An internal combustion engine, an engine crankcase gas blow-by sensor and a method of evaluating performance of an internal combustion engine**

(57) In a closed crankcase ventilation system, crankcase gases are allowed to flow through a venturi (10) which includes high pressure and low pressure taps (24 and 28). The high and low pressure taps (24) and (28) are coupled to a differential pressure transducer (30) which produces an output that is proportional to the volumetric flow of crankcase gases through the venturi (10). The use of a venturi (10) in conjunction with a differential pressure sensor (30) offers a low resistance path for the flow of crankcase gases and allows continuous monitoring of blow-by without exceeding the operating pressure limitations of various oil seals. Such a sensor (30) is particularly suited for closed crankcase ventilation (ccv) systems, as it doesn't require venting of crankcase gases to the atmosphere, but works well in open crankcase ventilation systems also.

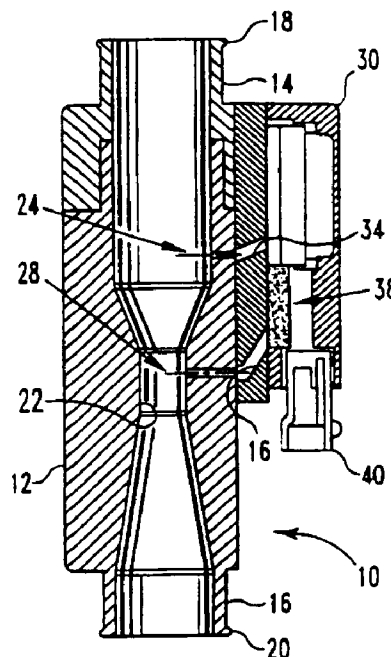


Fig. 3

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EUROPEAN SEARCH REPORT

Application Number
EP 96 30 8618

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	FR 2 641 575 A (GUILCHER GUY) * page 3, line 15 - page 6, line 7 * ---	1,2,8	F02B77/08 F01M11/10 F01M13/00 F02B77/10
A	FR 1 428 610 A (SACM) * page 1, column 2, line 9 - page 2, column 2, line 41; figures * ---	1,2,8	
A	US 4 481 828 A (CHENG PAUL J) * the whole document * -----	1,2,8	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			F02B F01M
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 4 February 1998	Examiner Mouton, J
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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